

145

REPORT TO  
MISSISSIPPI FLYWAY COUNCIL

Post-Season Mallard Fluoroscopy Project, January 1965  
(Summary of a report presented to the Technical Section at  
Council Bluffs, Iowa, on March 15, 1965.)

The exploratory fluoroscopy work done in January, 1964, proved the feasibility of gathering information on the incidence of body shot in mallards subjected to only one season's hunting pressure. Plans for 1965 included expanding the number of areas sampled to include (besides Union County Refuge in Illinois and the Claypool Reservoir and White River Refuge areas in Arkansas) Squaw Creek Refuge in Missouri and Yazoo Refuge in Mississippi.

The most serious problem encountered in the 1964 operations was inefficient use of time. Fluoroscopy crews had to wait while ducks were being trapped, and 4 or 5 days work was scattered over a 27 day period. To eliminate this problem, holding pens were to be constructed on each of the five areas, and male mallards only were to be penned. When about 500 birds were on hand, the fluoroscopy crew was to be notified. Because of various misunderstandings, the pens were not built.

On January 5, the equipment was moved to Union County Refuge. From January 6 to 14, 183 immature male mallards were fluoroscoped. Unseasonably warm weather scattered the birds and the project was suspended pending improved trapping success.

On January 19, word was received that trapping had improved at White River Refuge. The crew arrived the following day only to learn that the birds had once again scattered. A total of 228 birds were fluoroscoped at White River.

On January 22, the crew moved to Claypool Reservoir where 111 mallards were fluoroscoped. The crew then returned to Union County Refuge where 324 immature male mallards were being held in the traps. The Union County sample exceeded the 500 bird minimum quota.

The project was abandoned January 26 following word from the southern stations that trapping success continued quite poor and the appearance of early migrants was imminent.

The following persons participated in the 1965 operation:

Illinois:	George Arthur, Bill Mestel, Glen Fooke, Carlos Poole, Dennis Raevling
Wisconsin:	Dick Hunt
Michigan:	Ed Mikula
Tennessee:	Calvin Barstow, Larry McGinn, Jim Burbank
Arkansas:	Dave Donaldson, Jack Blair, Charlie Cooper
Missouri:	Dick Vaught, George Brakhage
BSF&W:	Ray McMasters, Joe White, Tom Cohen, Elwood Scheel, Lloyd McAdams, Art Hawkins, Dave Rose, Bob Personius, Bob Price, Marcus Turner
Mississippi:	Lewis Bays, Bob Lilly
England:	Hugh Boyd

Results: Sample sizes from two of the areas prevent accurate comparisons with shot incidence data from 1964. It appears, however, that gunning pressures during the 1964-65 season were somewhat less than in the 1963-64 season (see Table I), even with more lenient regulations. This is possible if the populations sampled increased at a rate greater than the hunting pressure they sustained.

Table I. Incidence of body shot in immature male mallards fluoroscoped at three wintering areas.

Location	1964		1965		Percent Change
	Number Examined	% with Shot	Number Examined	% with Shot	
Union County Refuge Illinois	602	12.8	510	8.2	-35.9
Claypool-Bayou DeView Arkansas	686	15.0	111	10.8	-28.0
White River N.W.R. Arkansas	<u>652</u>	<u>16.6</u>	<u>228</u>	<u>10.5</u>	<u>-36.7</u>
TOTALS	1,940	14.8	849	9.2	-37.8

Recommendations:

1. That efforts to fluoroscope 500 bird samples of immature male mallards at Union County Refuge, Illinois; Claypool Reservoir, Arkansas; and White River N.W.R., Arkansas; be continued in 1966.
2. That agreements be made between the Council, participating states and the Bureau of Sport Fisheries and Wildlife to construct holding pens on the sampling area large enough to accommodate as many as 500 mallards for as long as three weeks.
3. That the Bureau of Sport Fisheries and Wildlife prepare a report showing recovery rates of birds held for fluoroscopy and those banded and released at the trap site.

Respectfully submitted, August 5, 1965

Fluoroscopy Committee

Dick Vaught, Chairman  
George Brakhage  
Dave Donaldson  
Calvin Barstow  
George Arthur